



S00023022
SUPERFUND RECORDS

1/21/88
1/21/88
JAN 21 1988
24-62

JAN 21 1988

RICHARD SOS, Ph.D.
Chairman
Box 26000
Denver, Colorado 80222

DEAR MR. SOS:

Enclosed are the U.S. Environmental Protection Agency's (EPA) comments on sections 407 of the draft Ground Water and Surface Water Pathway Feasibility Study Report (December 22, 1987). All comments should be incorporated into the final draft report.

A column has been provided on the enclosed comments for EPA staff to explain whom each comment was responded to. The response should be handwritten on the comment page and submitted to EPA with the final draft report.

Sincerely yours,

Alice C. Fuerst
Cherokee County Project Manager
Superfund Branch
Waste Management Division

Enclosure

BCC: Administrative Record, w/enclosure (3 copies)

WSTH:SPED:RML:Fuerst.du Fuerst Disk 12-12 1/15/88

KELB
Fuerst

REMU
Wright

SPED
Wright
Wright

Fuerst
1-21-88

Fuerst
1-21-88

EPA Comments on Draft Groundwater and Surface Water GDS Report
SECTIONS 1 & 2: Cherokee County Site, surface subsite

General Comments

Comments Response

1. The new directions and requirements of 500K have been incorporated very well. The report nicely explains what is required. It also notes those requirements were accommodated in this study.
2. The GDS report should include a very good discussion of how, so long as the alternatives look at reducing the surface waste with 90% of the contaminants originating from the subsurface.

Specific comments

1. Section 1-2, para 1, 1st sentence - refer to the one used state environmental reporting of the 12 alternatives. The goal definition should be included. The text in front of the alternatives should discuss the goals achieved by the alternatives.
2. Page 1-2, paragraph 1-2 - This paragraph is incorrect. Sections 1-2 and 2-2 of the draft report are Step 1. The process described in the interim guidance document (Interim Guidance for 500K, Section 1-2) is Step 2 and 3. The first two sections of the 500K guidance document (Step 1) are correct. Step 1-2 is incorrect.
3. Page 1-2, paragraph 2-2 - Step 3 guidance is odd. Step 2 (1-2) indicates that section of the GDR is referred to as the "Draft Interim Finalization of GDS Change Study".
4. Page 1-2, paragraph 2-3 - The guidance document (Section 1-2) says "The 120" alternatives. The guidance document (Section 1-2) only 12 corrections is needed.
5. Page 1-2, paragraph 3-2 - The 12 alternatives represent the 120+ alternatives required by Section 121 of CERCLA in addition to the 90. This addition should be added.
6. Page 1-2, paragraph 3-2 - The paragraph should be revised. It should either add or replace the second and third sentences.
As originally written, the boundaries of the subsite include areas that have been indirectly affected by the past human activities and not physically disturbed on the surface. Nevertheless, the remedial activities developed for surface line waste or subsurface sulfide mineralization are limited in scope to those areas directly impacted by mining activities. However, all areas in the subsite boundaries may benefit from the remedial activities performed in those unimpacted areas.

Specific Comments	Oncor Hill Response
1. Page 6-4, Table 6-1 - a) Do not abbreviate "Remedial response action." It is too confusing. b) Alternative II should include "Recreational wells" in order to have a fair Creek-like alternative. c) The objectives for Alternative I need to be rewritten to be more understandable. d) There should be a footnote for "divert surface runoff surface water" to explain that it means diversions and/or recontouring.	
6. Page 6-6, Alternative I Description - The land surface will need to be reclaimed as required by the mining regulations. This should be added to the description and into the costs. Land reclamation should be included in all appropriate alternatives.	
9. Page 6-7, Figure 6-1 - I assume the final draft report will have clearer figures for each of the alternatives so that the surface waste areas will be recognizable. If shading does not work, maybe cross-hatching will.	
10. Page 6-9, paragraph 4 - Will world monitoring be required? The purpose of this alternative is to remove all waste so no monitoring would be required.	
11. Page 6-10, paragraph 1 - Oncor Hill was asked to look at the costs to slurry the material from Creece. That should be done.	
17. Page 6-14, paragraph 1 - Since this document was written the AWS RDU has been signed. The last sentence should be revised to state that EPA plans to have the Galena municipal water system expanded to the residents outside the current Galena service area boundaries. The CDR should be cited.	
18. Page 6-15, paragraph 2 - The activities discussed in this paragraph are part of the remedial action, not operation and maintenance. Because of the different funding mechanisms, this is an important difference and the paragraph must be revised.	
14. Page 6-15, paragraph 4 - The maintenance of the water treatment plant would only be during backfilling operations, therefore is not O&M. It is for the life of the remedial action only, not the life of the project. This correction should be made.	

Specific Components

Child Bill Expense

15. Page 6-20, paragraph 3 - a) The A&S RDE has been signed, therefore, this sentence should be revised to reflect this's decision. b) In the paragraph 1 on page 6-20, the report states that the water will be recharged, but paragraph 3 states it will be discharged to the stream. The contradiction should be corrected.
 16. Page 6-20, Alternative 10 description - what type of landfill would be necessary for the sludge disposal and disposal from wetland maintenance? This should be explained. There would be long-term risks on the landfill. That needs to be included on page 6-37.
 17. Page 6-27, Alternative 11 - alternative 11 should include remediation of deep aquifer wells. Just activity should be added to the description of cases. This will make the alternative similar to the "Fan Creek" remediation.
 18. Page 6-29, paragraph 1 - If the A&S proposal is referred to, the "proposed plan" should be cited. If the A&S remedial action is referred to, the A&S should be cited.
 19. Page 6-40, paragraph 3 - The following should be added to the paragraph:
All of the alternatives require remediation of the active deep wells and plugging of abandoned deep wells for the protection of the deep aquifer (i.e., the source of the alternative drinking water supply).
 20. Page 6-40, Table 6-3 - a) The following additional potential wells should be added to the table:

Potential Measure	Potential Rule	Comments
Removal of sulfide minerals	Surface Mining Control and Reclamation Act of 1977 as amended, 30 USC 1201-1323. Particularly 30 USC 1265.	Standards for reclaiming abandoned surface min. lands. Specifies standards for restoration of minelands.
	Kansas Statutes annotated 46-101	State program for reclaiming surface minelands.

SPECIFIC COMMENTS

GENERAL COMMENTS, CONSE

- should be forwarded. c) Alternative II should include the remediation of the deep wells, therefore criteria c should be changed. d) Is the technical feasibility of the alternative 3 "flags good?" f) Could another type of rating be used for impacts on surrounding environment? On the other criteria, "fair" is good but on this criteria it is bad.
20. Page 7-10 - Alternative 3 - as we have discussed, it would be preferable to refer to the Landfill as a containment structure or unit throughout the report.
21. Page 7-12, paragraph 2 and page 7-13, paragraph 1 - A landfill constructed on the site would not be a toxic landfill, it would be a rock-like landfill. A toxic landfill is for hazardous wastes and treated by permissives. Clarification is needed.
22. Page 7-13, paragraph 2 - Alternative 3 does not contain treatment of surface wastes, therefore the third sentence is not correct. The onsite surface wastes will not be treated, only consifted to one containment unit. A correction is needed.
23. Page 7-13, paragraph 2 - cannot under DMR be word "extremely."
24. Page 7-13, paragraph 3 - Section 1c1(c)(1) is in GCRUL as defined by DMR. Section 1c1 is not a section of DMR. The section should be cited as Section 1c1(c)(1) of GCRUL.
25. Page 7-20, paragraph 2 - Correct the citation of SECTION 1c1(c)(1) of GCRUL.
26. Page 7-26, Table 3-1 - a) The evaluation criteria for "overall protection of human health and the environment" should be explained. b) "Community Acceptance" and "State Acceptance" should be footnotes to explain that those criteria will not be part of the feasibility study report.
27. Page 7-26, Table 3-2 - need table.
28. Page 7-27, Evaluation of Protection of Human Health and the Environment - a) This section points out very clearly that anything EPR can do will have limited public health impacts. The impacts on the environment are barely touched on in this report. There should be focus more on the environmental

Specific Comments

CH2M HILL RESPONSE

impacts. It possible, include a table like Table 8-4 for environmental impacts. CH2M Hill can roughly predict what water quality improvements can be made by the different alternatives. Can CH2M Hill generally predict what type of aquatics could be reintroduced into the streams naturally. It is very important that we can show some environmental improvements in the streams.

35. Page 8-8, Table 8-3 - The public health assessment (pages 3-17 and 3-18) determined that incidental ingestion of surface water, dermal absorption and ingestion of contaminated fish do not contribute significantly to exposure. By placing those pathways on Table 8-3 with the other pathways, it infers there is equal level of concern. The table should make the distinction.
36. Page 8-9, Table 8-4 - the first entry under "Incidental Impacts" needs typographical corrections.
37. Page 8-9, paragraph 1 - This paragraph states that Alternatives 2, 3, 5 and 10 have direct impacts on fish ingestion, but that is not on the table. Further in the section, the report states that because of insignificant impacts from fish ingestion, fish ingestion is not included in the evaluations. Is fish ingestion more insignificant than incidental surface water ingestion? Further explanation is needed.
38. Page 8-11, Figure 8-1 - The figure title should be "Implementation of Alternatives 2 and 5." A change is needed.
39. Page 8-14, paragraph 4 - Some explanation is needed as to how the nine void space was estimated. If the information is in the appendix, that should be referenced.
40. Page 8-14, paragraph 4 - The detailed cost evaluations should be in the main part of the report, not in an appendix.
41. Page 8-14, paragraph 5 - What are the characteristics of the backfill slurry? This information needs to be included in the report or appendix.
42. Page 8-15, Figure 8-3 - The term "box Solids slurry to backfill" has a typo that should be corrected.

Specific Comments

43. Page 8-11, paragraph 1 - The meaning of the last sentence is not clear. What is meant by "misread"? A clarification is necessary.
44. Page 5-11, paragraph 2 - The discussion on page 5-11 of other wells is apparently only intended to refer to the known seven wells. The paragraph should be expanded to include the potential of location additional abandoned boreholes and missing ones.
45. Page 5-11, Implementability - For implementation section should include a discussion on the need for approvals and permits from other entities and agencies.
46. Page 5-11, paragraph 2 - It enhanced sulfide oxidation is necessary. Is a suitable site available for tailings repository? The highly permissive sulfide oxidation and the waste covering a much larger site hard to find. Poor site selection contributes to leach rates into the ground water system. This should be considered when writing address to the text.
47. Page 5-11, paragraph 3 - Do not identify a particular landfill in this report. There are numerous other open landfills in Missouri.
48. Page 5-11, short-term effectiveness - The time frame will take to achieve protection should be included in this section.
49. Page 5-11, paragraph 4 - An understanding that lead was not imported because of the way it behaved clearly, one could make similar statements that could be granted similar to Figure 5-11.
50. Page 5-12, paragraph 5 - It would be helpful to have a table showing the percent reduction of cadmium, zinc and lead at different locations as was presented at the January workshop.
51. Pages 5-21 and 5-22, Figures 5-4 and 5-5 - Present figures are too confusing to have in the main part of the report although are acceptable to have in the appendix. The figures could be used if there is no figure appendix. The figures are reduced drastically and if some of the key landmarks are identified on the figures.

Unscanned Document

**This document was unable to be scanned
into SDMS due to its size or construction**